State-Space Models

Applications in Economics and Finance

State-space models as an important mathematical tool has been widely used in many different fields. This edited collection explores recent theoretical developments of the models and their applications in economics and finance. The book includes nonlinear and non-Gaussian time series models, regime-switching and hidden Markov models, continuous- or discrete-time state processes, and models of equally-spaced or irregularly-spaced (discrete or continuous) observations. The contributed chapters are divided into four parts. The first part is on Particle Filtering and Parameter Learning in Nonlinear State-Space Models. The second part focuses on the application of Linear State-Space Models in Macroeconomics and Finance. The third part deals with Hidden Markov Models, Regime Switching and Mathematical Finance and the fourth part is on Nonlinear State-Space Models for High Frequency Financial Data. The book will appeal to graduate students and researchers studying state-space modeling in economics, statistics, and mathematics, as well as to finance professionals.

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Kundenservice Fachmedien Otto Schmidt Neumannstraße 10, 40235 Düsseldorf | <u>kundenservice@fachmedien.de</u> | 0800 000-1637 (Inland)

